



THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

RECEIVED

JUL 06 2004

Technology Center 2600

What I claim as my invention is:

1 (Original): **Design and Construction of the Device.**

A thermostatic controller conceived and designed for use with a HVAC system, including a controller unit having a field control terminal block and a thermostat remotely located from said control unit, said thermostatic controller comprises:

a project box type housing;

a plurality of switches mounted to said housing in a console-like arrangement;

wiring prepared and pre-wired with connectors to achieve interconnection between plurality of switches and their respective terminals on field control block of said HVAC system;

the main objective of the controller, to eliminate or lessen commutation between thermostat and remotely located field control unit should be achieved when thermostatic controller switches are selectively turned on, proper connection to respective field terminals should now allow said terminals to be energized and the HVAC system now operational.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

2 (Original): Controllers Switching Modes.

A thermostatic controller with a plurality of functions that include:

a fan function;

a cooling function;

a heating function;

said functions are fully operational within the scope of claim 1.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

3 (Original): Controller's Means of Input Conveyance

A thermostatic controller according to claim 1, wherein said wiring means includes sleeved four wire cable conductors with connectors at the end of each conductor; to interface with the said controller and the HVAC system.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

4 (Original): Flashlight and Test Circuit- Separate from Controller Circuit.

A thermostatic controller according to claim 1 further comprising a display unit mounted in said housing: said unit including a plurality of switches on said housing for controlling a plurality of display functions relating to:

flashlight;

continuity testing;

voltage testing.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

5 (Original): Interconnection of Controller to HVAC System.

A thermostatic controller for HVAC system, said HVAC system including a control unit and a thermostat remotely located from said control unit, said thermostatic controller comprising;

a housing;

a power switch, a fan switch, a cooling switch, and a heating switch installed in said housing;

wiring means for connecting said switch, said fan switch, said cooling switch and said heating switch to a power terminal, a fan terminal, a cool terminal and a heat terminal, respectively, each terminal being located on a field control terminal block of said control unit of said HVAC system;

said power switch is effectively a gate or isolation switch, wherein, when connected to its respective field control terminal, it provides power to the controller;

said switch is also a quick shutdown means of isolating the controller's power source, especially if an emergency arises; said fan switch, when said power switch is connected to said power terminal and said fan switch is connected to said fan terminal, and when said power switch and said fan switch are turned **on** in unison, should be effective for selectively activating the fan function of the said HVAC system;

said cooling switch, when said power switch is connected to said power terminal and said cooling switch is connected to said cooling terminal, and when said power switch and said cool

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

switch are turned **on** in unison, should be effective for selectively activating the cooling function of the said HVAC system;

said heating switch, when said power switch is connected to said power terminal and said heating switch is connected to said heating terminal, and when said power switch and said heating switch are turned **on** in unison, should be effective for selectively activating the heating function of the said HVAC system, wherein bypassing any form of input from the distantly located thermostat.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

6 (Original): Flashlight Function.

A thermostatic controller according to claim 4, further comprising an additional test circuit,
independent of the controller circuit and the said circuit consisting of a plurality of switches,
probes and display lamps, conveniently incorporated within the controller's housing;
a momentary switch;
said switch when turned on, effectively energizes the flashlight by means of 3 VDC batteries, and
the said flashlight is now functional.

THERMOSTATIC CONTROLLER AND CIRCUIT TESTER

CLAIMS

7 (Original): Operational Modes of Test Circuit

A thermostatic controller according to claim 6 consisting of a slide switch performing a dual role in its selective mode;

a circuit tester switch;

said switch when pushed one way as indicated on the controllers' housing, allows the voltage testing circuit to monitor its display via the attached test probes from the circuit under test, to the neon lamps mounted on said controller and the voltage test mode is now fully functional;

said slide switch, when switched to the opposite direction and the said test procedure is repeated the mode is set to perform continuity test function, of which the said procedure is monitored to the said input controller's housing, wherein, the presence or absence of an audible beep will determine its findings.